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TANG, KARIN C				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/535,394

Applicant(s)

KUTSUMI ET AL

Examiner

KAREN C. TANG

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-28, 31-37, 40 and 42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-28, 31-37, 40 and 42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/8/08 has been entered.
- Claims 1-21, 29-30, 38-41 are cancelled.
- Claims 22, 36, 40 and 42 are currently amended.
- Claims 22-28, 31-37, 40 and 42 are presented for further examination.

Response to Arguments

Applicant's arguments filed 7/8/08 have been fully considered but they are not persuasive.

Applicant argues that the cited art of record did not disclose or suggest "...the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior."

Examiner disagrees.

After carefully reviewing the cited art of records, Hoffberg, taught the limitation where "...the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior." In Hoffberg, the system comprising a interface provide user the information

relates to a particular device, further the interface present a sequence of functions that is used to predicting the user's behavior "(i.e., sequence of past actions that will perform into a sequence of "actions" could be immediately presented to the user as a first service" refer to Col 111, Lines 16-21).

Therefore, the argument is not persuasive.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 40 is rejected under 35 U.S.C. 101 because according to pages 3 of the specification, "A service Provision Apparatus" configured as a software framework. "A Service Provision Apparatus" comprising a reception unit, a service provision unit, operation history unit (i.e., software, see specification 0091, 0094, 0113, and 0124) does not include any functional hardware structure. A Service Provision Apparatus comprises software is considered as program per se, which is not one of the categories of statutory subject matter.

Claim 42 is rejected under 35 U.S.C. 101 because according to page 3 of the specification, "A program" is configured as a software framework. "A Program" does not include any functional hardware structure of a system and is considered as program per se, which is not one of the categories of statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 25-28, 31-37, 40 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffberg et al hereinafter Hoffberg (US 6,400,996) and in view of Michihiro (JP2002-007020).

1. Referring to Claim 22, Hoffberg disclosed an operation history utilization system which utilizes a user's operation history on a device, and provides the user with a service, the system comprising:

a device (refer to Col 41, Lines 60-61, "air conditioning control, lighting, appliances, machinery", refer to Col 56, Lines 55-67, and "VCR") operable to transmit which has a function of transmitting operation data that describes a user's operation details (refer to Col 42, Lines 3-7 and refer to Col 58, Lines 5-10) on said device;

wherein said service provision apparatus includes:

an operation history reception unit operable to receive the operation history data transmitted from said device (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67);

an operation history database unit operable to accumulate the received operation history data ("derived weighting of at least a subset of possible choices, the derived weighting being based on a history of use.." refer to Col 69, Lines 53-67);

a pattern extraction unit operable to extract the frequent operation pattern from the operation history data accumulated in said operation history database unit (“extract trend” Col 126, Lines 25-30);

a pattern database unit operable to store the extracted frequent operation pattern (“When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option”, in another words, an option of sequence of past actions (that has been stored in the system) that will perform into a sequence of “actions” is immediately presented to the user as a first service” refer to Col 111, Lines 16-21);

a pattern monitor unit operable to monitor whether or not a sequence of operation history data newly received by said operation history reception unit corresponds to the frequent operation pattern stored in said pattern database unit (“interact with pre-existing rules..” refer to Col 126, Lines 31-33);

a service provision unit operable to provide the service according to the user's behavior predicted from a result of the monitoring performed by said pattern monitor unit (providing the service according to the user's behavior predicted from a result of the performed monitoring (“When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option”, in another words, an option of sequence of past actions that will perform into a sequence of “actions” is immediately presented to the user as a first service” refer to Col 111, Lines 16-21); and

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a function database unit operable to store a predetermined relationship between an operation performed by said device and a function provided to the user in response to the operation (refer to Col 53, Lines 66-67 and Col 54, Lines 1-10 and "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option", in another words, an option of sequence of past actions that will perform into a sequence of "actions" is immediately presented to the user as a first service" refer to Col 111, Lines 16-21);

wherein said pattern extraction unit is operable to compare the operation history data accumulated in said operation history database unit with a predetermined relationship in said function database unit (learned from the past history, and performs actions based on what has been learned/stored within the system, Col 127, Lines 22-30), convert the operation history data into a sequence of functions (based on the learned history, execute the control sequences, refer to Col 127, Lines 22-30), extract a frequent operation pattern from the sequence of functions, and store the extracted frequent operation pattern into said pattern database unit (refer to Col 111, Lines 16-21);

the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior ("The interface then accesses the memory for a profile of the past use of the machine by the user, which may include the entire prior history, relevant abstracts of the history or derived user preferences", refer to Col 116, Lines 24-33, "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a

given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option” in another words, sequence of past actions that will perform into a sequence of “actions” could be immediately presented to the user as a first service” refer to Col 111, Lines 16-21, ..”interface would present the information to the user”, refer to Col 111, Lines 26-34.)

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding “a service provision apparatus operable to (i) accumulate the operation data transmitted from said device as operation history data in chronological order, (ii) specify a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (iii) provide a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data.”

Michihiro, in an analogous art disclosed “a service provision apparatus operable to (i) accumulate the operation data transmitted from said device as operation history data in chronological order (refer to page 4, Lines 20-22, page 5, Lines 11-12), (ii) specify a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data (refer to page 4, Lines 22-25) and (iii) provide a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data (refer to page 4, Lines 9-11 and Lines 27-28);”

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

2. Referring to Claim 36, Hoffberg disclosed an operation history utilization method for utilizing a user's operation history on a device, and provides the user with a service, the method comprising steps of:

transmitting operation data that describes details regarding the user's operation details on a device, said transmitting being performed by the device (refer to Col 42, Lines 3-7 and refer to Col 58, Lines 5-10) on said device;

receiving operation history data transmitted from the device (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67, and Col 42, Lines 3-9);

accumulating the operation history data received from the device in an operation history database unit ("derived weighting of at least a subset of possible choices, the derived weighting being based on a history of use.." refer to Col 69, Lines 53-67);

extracting the frequent operation pattern from the operation history data accumulated in the operation history database unit using a pattern extracting unit ("extract trend" Col 126, Lines 25-30);

storing the extracted frequent operation pattern in a pattern database unit (user's history usage pattern has been stored, refer to Col 111, Lines 16-21);

monitoring whether or not a sequence of newly received operation history data from said device corresponds with the frequent operation stored in said pattern database unit ("interact with pre-existing rules.." refer to Col 126, Lines 31-33);

providing the service according to the user's behavior predicted from a result of the performed monitoring ("When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option", in another words, an option of sequence of past actions that will perform into a sequence of "actions" is immediately presented to the user as a first service" refer to Col 111, Lines 16-21); and storing in a function database unit a predetermined relationship between an operation performed by the device and a function provided to the user in response to the operation (refer to Col 53, Lines 66-67 and Col 54, Lines 1-10 and "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option", in another words, an option of sequence of past actions that will perform into a sequence of "actions" is immediately presented to the user as a first service" refer to Col 111, Lines 16-21);

wherein the pattern extraction unit compares the operation history data accumulated in the operation history database unit with a predetermined relationship in the function database unit (learned from the past history, and performs actions based on what has been learned/stored within the system, Col 127, Lines 22-30), convert the operation history data into a sequence of functions (based on the learned history, execute the control sequences, refer to Col 127, Lines 22-30), extract a frequent operation pattern from the sequence of functions, and store the extracted frequent operation pattern into said pattern database unit (refer to Col 111, Lines 16-21); and

the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior ("The interface then accesses the memory for a profile of the past use of the machine by the user, which may include the entire prior history, relevant abstracts of the history or derived user preferences", refer to Col 116, Lines 24-33, "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option" in another words, sequence of past actions that will perform into a sequence of "actions" could be immediately presented to the user as a first service" refer to Col 111, Lines 16-21, .."interface would present the information to the user", refer to Col 111, Lines 26-34.)

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding "(i) accumulating the operation data transmitted from the device as operation history data in chronological order, (ii) specifying a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (iii) providing a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data;"

Michihiro, in an analogous art disclosed " a service provision apparatus operable to (i) accumulating the operation data transmitted from the device as operation history data in chronological order (refer to page 4, Lines 20-22, page 5, Lines 11-12), (ii) specifying a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (refer to page 4, Lines 22-25) and (iii) providing a

service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data (refer to page 4, Lines 9-11 and Lines 27-28).”

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

3. Referring to Claim 40, Hoffberg disclosed an service provision apparatus which provides a user with service by utilizing the user operation history on a device, the apparatus comprising: a reception unit operable to receive operation data describing the user's operation details transmitted from the device (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67, and Col 42, Lines 3-9);
wherein said service provision apparatus includes:
an operation history reception unit operable to receive the operation history data transmitted from said device (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67);
an operation history database unit operable to accumulate the received operation history data (“derived weighting of at least a subset of possible choices, the derived weighting being based on a history of use..” refer to Col 69, Lines 53-67);

a pattern extraction unit operable to extract the frequent operation pattern from the operation history data accumulated in said operation history database unit (“extract trend” Col 126, Lines 25-30);

a pattern monitor unit operable to monitor whether or not a sequence of operation history data newly received by said operation history reception unit corresponds to the frequent operation pattern stored in said pattern database unit (“interact with pre-existing rules..” refer to Col 126, Lines 31-33); and

a function database unit operable to store a predetermined relationship between an operation performed by said device and a function provided to the user in response to the operation (refer to Col 53, Lines 66-67 and Col 54, Lines 1-10 and “When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option”, in another words, an option of sequence of past actions that will perform into a sequence of “actions” is immediately presented to the user as a first service” refer to Col 111, Lines 16-21);

wherein said pattern extraction unit is operable to compare the operation history data accumulated in said operation history database unit with a predetermined relationship in said function database unit (learned from the past history, and performs actions based on what has been learned/stored within the system, Col 127, Lines 22-30), convert the operation history data into a sequence of functions (based on the learned history, execute the control sequences, refer to Col 127, Lines 22-30), extract a frequent operation pattern from the sequence of functions, and store the extracted frequent operation pattern into said pattern database unit (refer to Col 111,

Lines 16-21); the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior ("The interface then accesses the memory for a profile of the past use of the machine by the user, which may include the entire prior history, relevant abstracts of the history or derived user preferences", refer to Col 116, Lines 24-33, "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option" in another words, sequence of past actions that will perform into a sequence of "actions" could be immediately presented to the user as a first service" refer to Col 111, Lines 16-21, .."interface would present the information to the user", refer to Col 111, Lines 26-34.)

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding " a service provision apparatus operable to (i) accumulate the operation data transmitted from said device as operation history data in chronological order, (ii) specify a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (iii) provide a service according to the user's behavior predicted from the specified frequent operation pattern;"

Michihiro, in an analogous art disclosed "a service provision apparatus operable to (i) accumulate the operation data transmitted from said device as operation history data in chronological order (refer to page 4, Lines 20-22, page 5, Lines 11-12), (ii) specify a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data (refer to page 4, Lines 22-25) and (iii) provide a service

according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data (refer to page 4, Lines 9-11 and Lines 27-28);”

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

4. Referring to Claim 42, Hoffberg disclosed a program for a service provision apparatus which provides a user with service by utilizing the user's operation history on a device, the program causing a computer to execute steps of:

receiving operation data describing the user's operation transmitted from said device; (refer to Col 42, Lines 3-7 and refer to Col 58, Lines 5-10);

receiving operation history data transmitted from the device (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67, and Col 42, Lines 3-9);

accumulating the operation history data received from the device in an operation history database unit (“derived weighting of at least a subset of possible choices, the derived weighting being based on a history of use..” refer to Col 69, Lines 53-67);

extracting the frequent operation pattern from the operation history data accumulated in the operation history database unit using a pattern extracting unit (“extract trend” Col 126, Lines 25-30);

storing the extracted frequent operation pattern in a pattern database unit (user's history usage pattern has been stored, refer to Col 111, Lines 16-21);

monitoring whether or not a sequence of newly received operation history data from said device corresponds with the frequent operation stored in said pattern database unit ("interact with pre-existing rules.." refer to Col 126, Lines 31-33); and

providing the service according to the user's behavior predicted from a result of the performed monitoring ("When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option", in another words, an option of sequence of past actions that will perform into a sequence of "actions" is immediately presented to the user as a first service" refer to Col 111, Lines 16-21); and

storing in a function database unit a predetermined relationship between an operation performed by the device and a function provided to the user in response to the operation (refer to Col 53, Lines 66-67 and Col 54, Lines 1-10 and "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option", in another words, an option of sequence of past actions that will perform into a sequence of "actions" is immediately presented to the user as a first service" refer to Col 111, Lines 16-21);

wherein the pattern extraction unit compares the operation history data accumulated in the operation history database unit with a predetermined relationship in the function database unit (learned from the past history, and performs actions based on what has been learned/stored

within the system, Col 127, Lines 22-30), convert the operation history data into a sequence of functions (based on the learned history, execute the control sequences, refer to Col 127, Lines 22-30), extract a frequent operation pattern from the sequence of functions, and store the extracted frequent operation pattern into said pattern database unit (refer to Col 111, Lines 16-21); and

the function provided to the user is a main function associated with a name of said device, and the operation history data converted into the sequence of functions is used for predicting the user's behavior ("The interface then accesses the memory for a profile of the past use of the machine by the user, which may include the entire prior history, relevant abstracts of the history or derived user preferences", refer to Col 116, Lines 24-33, "When a user regularly applies the VCR device, for example, to record a particular television show which appears weekly on a given television channel, at a given time, on a given channel, such an action could be immediately presented to the user as a first option" in another words, sequence of past actions that will perform into a sequence of "actions" could be immediately presented to the user as a first service" refer to Col 111, Lines 16-21, .."interface would present the information to the user", refer to Col 111, Lines 26-34.)

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding (i) accumulating the operation data transmitted from the device as operation history data in chronological order, (ii) specifying a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (iii) providing a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data, (iv) storing the extracted frequent operation

pattern in a pattern database unit; (v) providing the service according to the user's behavior predicted from a result of the monitoring performed by said pattern monitor unit; Michihiro, in an analogous art disclosed " a service provision apparatus operable to (i) accumulating the operation data transmitted from the device as operation history data in chronological order (refer to page 4, Lines 20-22, page 5, Lines 11-12), (ii) specifying a frequent operation pattern which is a sequence of frequent operation history patterns based on the accumulated operation history data and (refer to page 4, Lines 22-25) and (iii) providing a service according to the user's behavior predicted from the specified frequent operation pattern included in the accumulated operation history data (refer to page 4, Lines 9-11 and Lines 27-28), (iv) storing the extracted frequent operation pattern in a pattern database unit (refer to page 5, Lines 27-30); providing the service according to the user's behavior predicted from a result of the monitoring performed by said pattern monitor unit (refer to page 4, Lines 9-11 and Lines 27-28);"

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

5. Referring to Claim 25, Hoffberg in view of Michihiro disclose the operation history utilization system according to Claim 22, Hoffberg disclosed wherein said device includes: a device that the user operation history of the device are received in the user history database (refer

to Col 69, Lines 53-67); storing operation history data in which a date and a time of an operation in association with details of an a type of operation (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67 and Col 89, Lines 34-61 and Col 113, Lines 55-62);

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg did not explicitly disclosed the explicit operation information and the user operation history is stored in the device. Michihiro disclosed a device that includes: an operation history storage unit operable to store operation history data (refer to page 1, Lines 14 and page 4, Lines 20-21, and page 5, Lines 4-5); accumulate, into an operation history database, the operation details and the operation state in which the operation is performed (refer to page 6, Lines 5-7);

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

6. Referring to Claim 26, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 25, Hoffberg disclosed wherein said device further includes a viewing history storage unit operable to store viewing history data related to content viewed by the user and said operation history transmission unit is operable to transmit, to said service provision apparatus, the viewing history data stored in said viewing history storage unit together with the operation history data (refer to Col 76, Lines 13-14).

7. Referring to Claim 27, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 25, Hoffberg disclosed wherein said device further includes a user identification unit operable to identify the user who performed the operation (fig 17, elements 1701, Col 84, Lines 46-64), and said operation history storage unit is operable to store a result identified by said user identification unit as a part of the operation history (refer to Col 89, Lines 6-11).

8. Referring to Claim 28, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 25, Hoffberg disclosed wherein said device is operable to store information as a part of an operation history into said operation history storage unit, the information describing a communication partner (refer to Col 89, Lines 6-11).

9. Referring to Claim 31, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 22, Hoffberg disclosed wherein said service provision apparatus includes: a viewing history reception unit operable to receive the viewing history data transmitted together with the operation history data from said device (refer to Col 69, Lines 53-67, Col 78, Lines 44-67, Lines 41-51); and a viewing history database unit operable to accumulate the received viewing history data (refer to Col 76, Lines 13-14, Lines 41-51); and said pattern extraction unit is operable to extract a frequent pattern from both of the operation history data accumulated in said operation history database unit and the viewing history data accumulated in said viewing history database unit (refer to Col 126, Lines 25-30).

10. Referring to Claim 32, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 22, Hoffberg disclosed wherein said pattern extraction unit is operable to utilize information regarding the user operating said device so as to extract the frequent operation pattern, the information being transmitted from said device (refer to Col 126, Lines 25-30).

11. Referring to Claim 33, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 22, Hoffberg disclosed wherein said pattern extraction unit is operable to utilize information regarding a communication partner so as to extract the frequent operation pattern, the information being transmitted from said device (refer to Col 126, Lines 25-30).

12. Referring to Claim 34, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 22, Hoffberg disclosed comprising a plurality of devices which transmit respective operation data describing the details of the user's operation (refer to Col 42, Lines 3-9).

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding “(i) accumulates the operation history data, (ii) specifies the frequent operation pattern based on the accumulated operation history data and (iii) predicts the user's behavior from the specified frequent operation pattern; provides service according to the user's behavior predicted by said user server apparatus.”

Michihiro, in an analogous art disclosed “(i) accumulates the operation history data (refer to Page 5, Lines 11-12), (ii) specifies the frequent operation pattern based on the accumulated operation history data (refer to page 4, Lines 22-25) and (iii) predicts the user's behavior from the specified frequent operation pattern (refer to page 4, Lines 22-25); and an application server apparatus which provides service according to the user's behavior predicted by said user server apparatus. (refer to page 4, Lines 9-11, Lines 27-28)”

Hoffberg and Michihiro did not explicitly disclose a user server apparatus and an application server apparatus to perform functions described above, it would have been obvious to one of ordinary skill in the art to use two different servers or any number of servers to perform the functions as described above. Using distributed server to perform multiple step functions is efficient as tasks are distributed.

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

13. Referring to Claim 35, Hoffberg in view of Michihiro disclosed the operation history utilization system according to Claim 22, Hoffberg disclosed wherein said serviced provision apparatus provides the service by automatically controlling said device according to the frequent operation pattern (refer to Col 42, Lines 3-9).

14. Referring to Claim 37, Hoffberg in view of Michihiro disclosed the operation history utilization method according to Claim 36, Hoffberg disclosed the method comprising steps of: storing operation history data in which a date and a time of an operation in association with details of an a type of operation (refer to Col 69, Lines 53-67 and Col 78, Lines 44-67 and Col 89, Lines 34-61 and Col 113, Lines 55-62);

Although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding "transmitting the stored operation history data from said device at a predetermined timing."

Michihiro, in an analogous art disclosed ""transmitting the stored operation history data from said device at a predetermined timing. "(page 4, Lines 20-21 and Page 5, Lines 4-5, Page 6, Lines 5-7)

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffberg et al hereinafter Hoffberg (US 6,400,996) and in view of Michihiro (JP2002-007020) in further view of Official Notice.

15. Referring to Claim 23, the operation history utilization system according to Claim 22, although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding

“wherein said service provision apparatus includes: a user server apparatus which (i) accumulates the operation history data, (ii) specifies the frequent operation pattern based on the accumulated operation history data and (iii) predicts the user's behavior from the specified frequent operation pattern; provides service according to the user's behavior predicted by said user server apparatus.”

Michihiro, in an analogous art disclosed “(i) accumulates the operation history data (refer to Page 5, Lines 11-12), (ii) specifies the frequent operation pattern based on the accumulated operation history data (refer to page 4, Lines 22-25) and (iii) predicts the user's behavior from the specified frequent operation pattern (refer to page 4, Lines 22-25); and an application server apparatus which provides service according to the user's behavior predicted by said user server apparatus. (refer to page 4, Lines 9-11, Lines 27-28)”

Hoffberg and Michihiro did not explicitly disclose a user server apparatus and an application server apparatus to perform functions described above.

Official Notice is taken. It would have been obvious to one of ordinary skill in the art to use two different servers or any number of servers to perform the functions as described above. Using distributed server to perform multiple step functions is efficient as tasks are distributed.

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

16. Referring to Claim 24, the operation history utilization system according to Claim 22, although Hoffberg disclosed the invention substantially as claimed, Hoffberg is silent regarding “wherein said service provision apparatus includes: a user server apparatus which (i) accumulates the operation history data, (ii) specifies the frequent operation pattern based on the accumulated operation history data and (iii) predicts the user's behavior from the specified frequent operation pattern; provides service according to the user's behavior predicted by said user server apparatus.”

Michihiro, in an analogous art disclosed “(i) accumulates the operation history data (refer to Page 5, Lines 11-12), (ii) specifies the frequent operation pattern based on the accumulated operation history data (refer to page 4, Lines 22-25) and (iii) predicts the user's behavior from the specified frequent operation pattern (refer to page 4, Lines 22-25); and an application server apparatus which provides service according to the user's behavior predicted by said user server apparatus. (refer to page 4, Lines 9-11, Lines 27-28)”

Hoffberg and Michihiro did not explicitly disclose a user server apparatus and an application server apparatus to perform functions described above.

Official Notice is taken. It would have been obvious to one of ordinary skill in the art to use two different servers or any number of servers to perform the functions as described above. Using distributed server to perform multiple step functions is efficient as tasks are distributed.

Hence, providing functionalities disclosed by Michihiro, would be desirable for to implement in order to enable a controller that have capabilities to provide services to a user based on monitoring user operation onto a device.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Hoffberg by including the features disclosed by Michihiro.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2151

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/Karen C Tang/

Patent Examiner, Art Unit 2151